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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,176	05/24/2007	Haiko Adolf	2003P17895WOUS	5892

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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

GONZALEZ QUINONE, JOSE A

ART UNIT	PAPER NUMBER
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2834

MAIL DATE	DELIVERY MODE
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02/25/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/589,176	Applicant(s) ADOLF ET AL.	
	Examiner JOSE A. GONZALEZ QUINONES	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 03 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15,17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15,17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20060811</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 15-29 have been considered but are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on August 11, 2006, is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

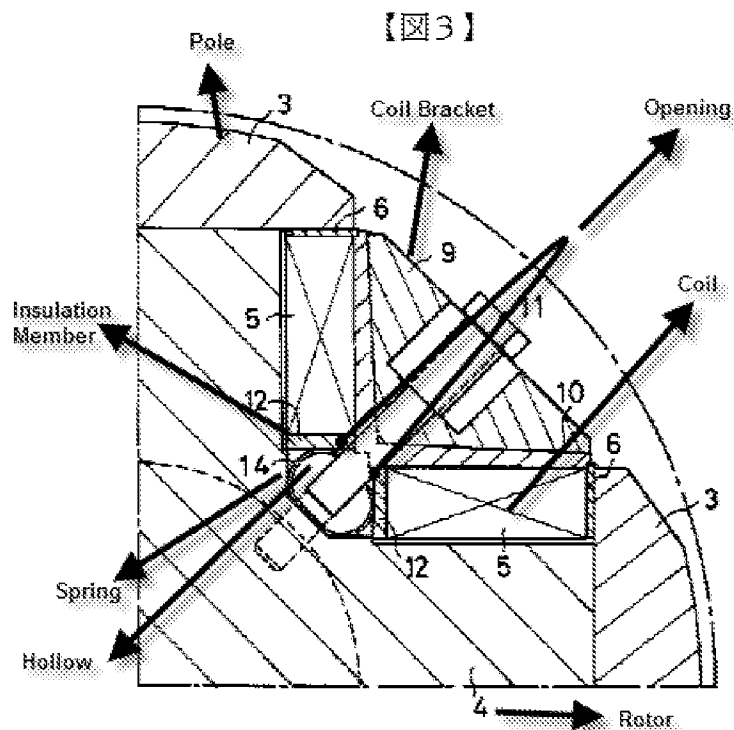
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15, 17, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horikiri et al. (JP 11069681 A) in view of Kibe et al. (JP2002058188).

As to claim 15, Horikiri et al. teaches rotor body (4) that extends in an axial direction of the machine; a pole shoe (3) arranged on the rotor body (4); a field coil (5) arranged between a portion of the a rotor body (4) and a portion of the pole shoe (3); and a leaf spring (spring element 14) between the field coil (5) and the rotor body (4) that force the field coil (5) against the pole shoe (3) by exertion a spring force against the field coil (5) forcing the field coil (5) , the spring (spring element 14) having a hollow

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cross section with an interior portion arranged between the a field coil (5) and the a rotor body(4), wherein the spring has an essentially U shaped cross section having two limb like extensions positioned so that the field coil (5) is forced against the pole shoe by one of the two limbs; wherein the spring (spring element 14) an axis of the spring cross section is parallel to the rotor axis, the interior portion of the hollow spring element (14) forms an axial cooling channel of the machine as shown in figure 3.

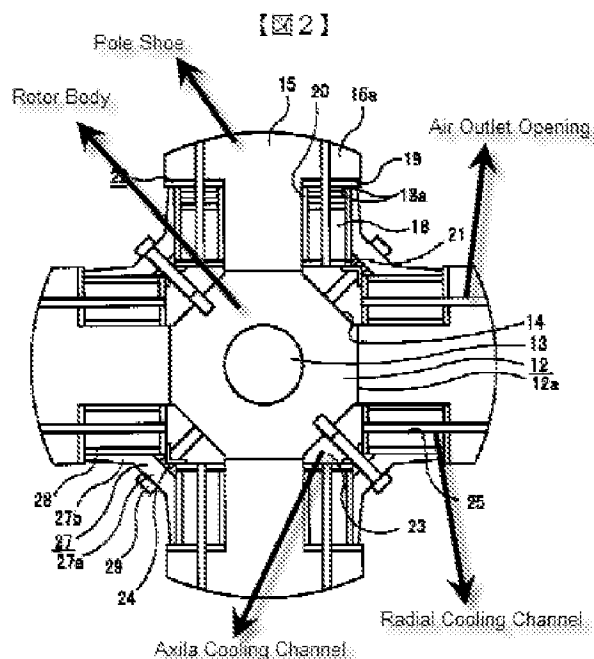


However Horikiri et al. fails to disclose pole shoe including an air outlet opening and the field coil includes a radial cooling channel extending from the axial cooling channel to the air outlet opening, with radial cooling channel extending radially outward with respect to the axial direction of the rotor body, and wherein the radial cooling channel is in connection with the axial cooling channel to allow flow of the cooling

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medium from the axial cooling channel and through the radial cooling channel and through the air outlet opening of the pole shoe.

However Kibe et al. discloses pole shoe (15) including an air outlet opening (see annotation figure 2) and the field coil (18) includes a radial cooling channel (25) extending from the axial cooling channel (23) to the air outlet opening (see annotation figure 2), with radial cooling channel (25) extending radially outward with respect to the axial direction of the rotor body (12), and wherein the radial cooling channel (25) is in connection with the axial cooling channel (23) to allow flow of the cooling medium from the axial cooling channel (23) and through the radial cooling channel (25) and through the air outlet opening (see annotation figure 2) of the pole shoe (15) as shown in figure 2.



It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Horikiri et al. by using a pole shoe including an air outlet opening and the field coil includes a radial cooling channel extending from the axial cooling channel to the air outlet opening, with radial cooling channel extending radially outward with respect to the axial direction of the rotor body, and wherein the radial cooling channel is in connection with the axial cooling channel to allow flow of the cooling medium from the axial cooling channel and through the radial cooling channel and through the air outlet opening of the pole shoe as taught by Kibe et al. to provide an effective cooling winding.

As to claim 17, Horikiri et al. teaches wherein the spring (30) has two essentially U-shaped sections which partially overlap to form essentially an O-shape having an opening at one point as shown in figure 3.

As to claim 19, Horikiri et al. teaches wherein the spring (14) is fixed to the a rotor body (4) by a fixing device on a side of the O-shaped spring opposite the opening in the spring (14) as shown in figure 3.

Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horikiri et al. in view of Kibe et al., as applied in claim 17 and 19 above, and further in view of Segawa (PG Pub 2004/0163879 A1).

As to claim 20-21, Horikiri et al. has been discussed above but fails to disclose wherein the spring has a spring stiffness of between approximately 1 and 4 N/mm and 2 and 3N/mm.

However Segawa suggested a spring stiffness of 1N/mm to 20 N/mm which overlap spring stiffness of 1 and 4 N/mm and of 2 and 3 N/mm Paragraph [0013].

shaft. The elastic-force application means comprises an elastic member having a variable spring constant that can be changed from a low spring constant of 1 N/mm to 20 N/mm to a high spring constant of 180

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Horikiri et al. by use wherein the spring has a spring stiffness of between approximately 1 and 4 N/mm as taught by Segawa to provide an effective low spring constant.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSE A. GONZALEZ QUINONES whose telephone number is (571)270-7850. The examiner can normally be reached on 1 st week Monday to Friday 7:30 AM to 5:00 PM and 2nd week Monday to Thursday 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quyen P. Leung can be reached on 571-272-8188. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quyen Leung/
Supervisory Patent Examiner, Art Unit 2834

/JOSE A GONZALEZ QUINONES/
Examiner, Art Unit 2834
February 16, 2010